

REMARKS**Rejections under § 112**

Claim 11 and its depending claims 16 and 17 have been rejected under § 112 as not enabled for not reciting that the fluororesin coating has a thickness of 50 μm or more. The present amendment incorporates language reciting the fluororesin coating having a thickness of 50 μm or more from claim 18 in independent claim 11. The addition of this language in the independent claim is believed to overcome for all claims the § 112 rejection, withdrawal of which is respectfully requested.

Rejections on prior art

Claim 11 has here been amended as stated above to satisfy the enablement requirement of § 112 by incorporating the language of claim 18 which depended therefrom. Claim 18 was rejected as unpatentable under § 103 over the reference JP 07-089603, and reconsideration of this rejection is respectfully requested.

Claim 11 as amended recites a method comprising rounding all edges of a quartz glass jig into curved portions each having a radius of curvature of 0.5 mm or larger, and forming a fluororesin coating with a thickness of 50 μm or more on the entire quartz glass jig by treating the resulting jig with a fluororesin coating agent. This method produces a jig that is superior due to a reduction or elimination of peeling of the fluororesin coating during use of the jig. See specification, page 3, lines 10 to 14.

JP 07-089603 fails to suggest this method or to provide the resistance to peeling of the jigs made according to the method of the invention. JP 07-089603 represents, in fact, a typical jig of the prior art, in which a jig with sharply cut grooves, e.g., reference characters 20f in Fig. 8

and 20g in Fig. 9, is covered with a fluororesin coating. The jig of JP 07-089603 has problems that are described in the prior art section of the present application. See specification, page 2, lines 7 to 12 ("... in Japanese Patent Laid-Open No. 89603/1995 is proposed to cover the quartz glass claws of the work support arm for transferring the works with a fluororesin. However, in case of cleaning the silicon wafers, hydrofluoric acid has been found to penetrate from the edge plane into the work support arm for transferring the works, and to cause peeling off of the fluororesin coating; or, contaminating substances have been found to elute out from the edge portion into the hydrofluoric acid solution to cause contamination of the silicon wafer.")

These problems encountered in the apparatus disclosed in JP 07-089603 are overcome by the present invention.

JP 07-089603 does teach applying a fluororesin coating, but fails to suggest a step of rounding all edges of the quartz glass jig into curved portions each having a radius of curvature of 0.5 mm or larger, which confers the substantial and unexpected benefit of reducing peeling of the fluororesin layer. Claim 11 as amended therefore distinguishes over this reference, and reconsideration of the rejection is respectfully requested.

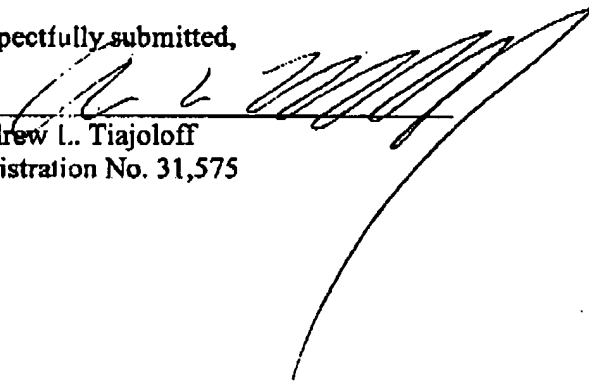
Claim 11 as amended also distinguishes clearly over JP 07-128623, the other reference discussed in the office action. The teaching of JP 07-128623 is even further, for a number of reasons, from the claimed invention than the other Japanese reference, JP 07-089603, and is distinguished from the claim readily by the failure to suggest rounding of edges of the jig. See JP 07-128623, figure 2, grooves 4, all of which have acute angular corners, not rounded edges as are formed in the method of claim 11. JP 07-128623 therefore also fails to suggest the claimed method.

Claims 16 and 17 depend from claim 11 and therefore distinguish therewith over the prior art.

All pending claims having been shown to distinguish over the prior art in structure, function and result, formal allowance is respectfully requested.

Should any questions arise, the Examiner is invited to telephone attorney for applicant at 212-490-3285.

Respectfully submitted,

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